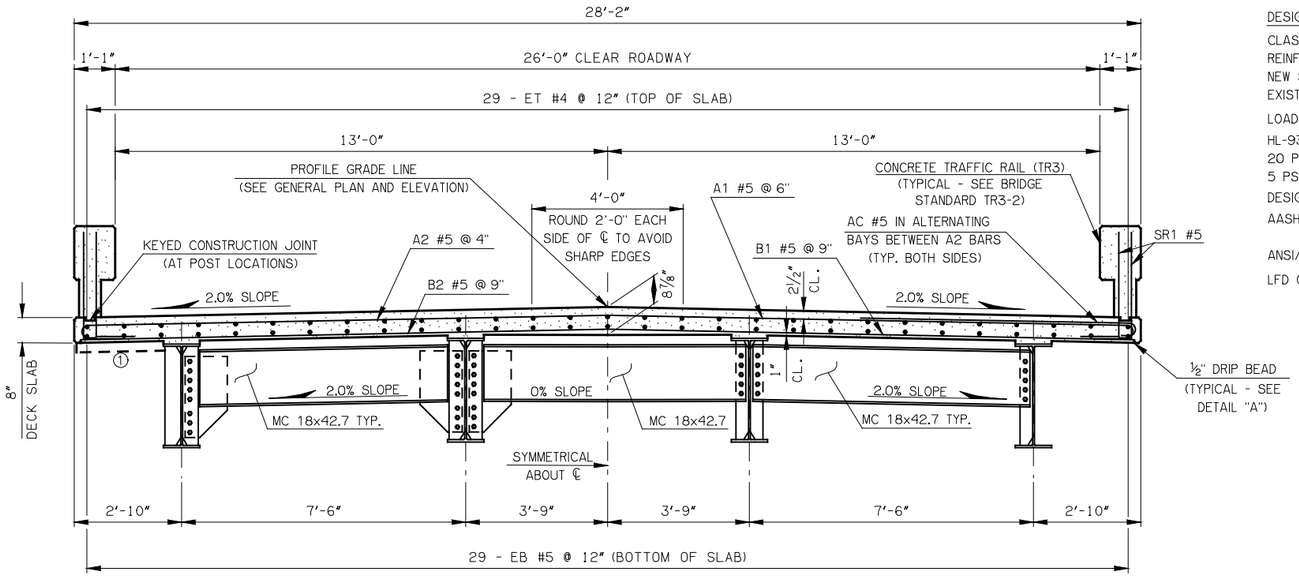


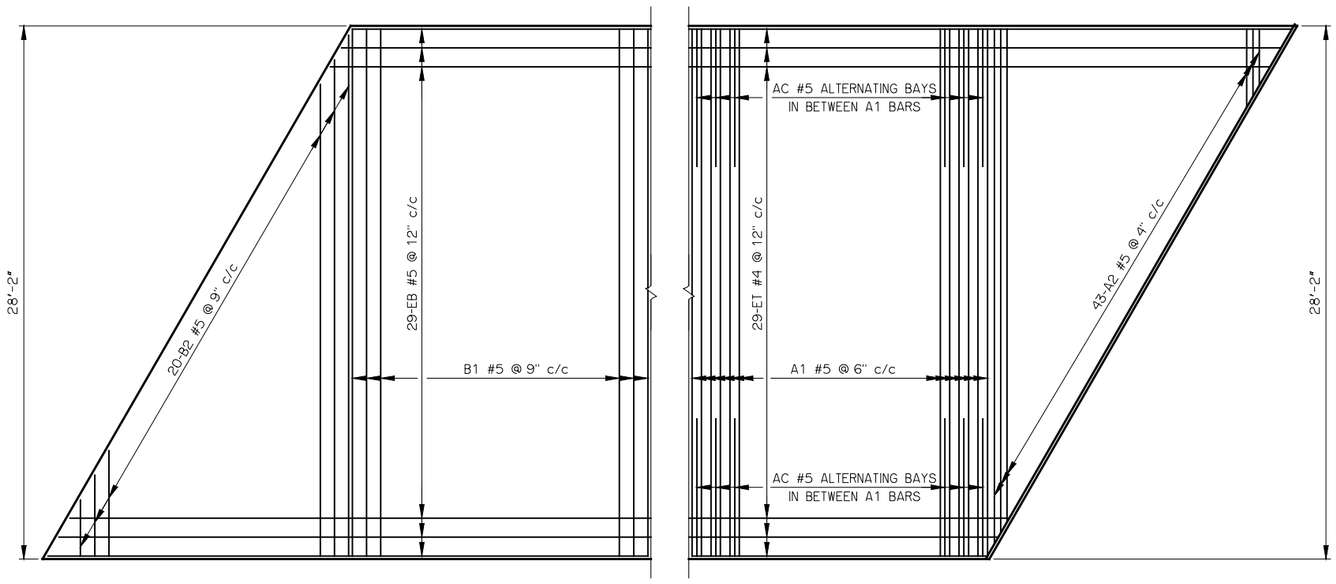
HALF SECTION AT END DIAPHRAGM

① REFER TO APPLICABLE STANDARDS FOR ADDITIONAL DECK REINFORCING AND DIMENSIONS NOT SHOWN HERE.

HALF SECTION AT INTERMEDIATE DIAPHRAGM

TYPICAL CROSS SECTION

NOTE: W33x141 BEAMS SHOWN, W33x130, W36x135 OR W36x150 SIMILAR



BOTTOM REINFORCING

TOP REINFORCING

SLAB REINFORCING DETAIL

NOTE: SR1 BARS ARE NOT SHOWN

DESIGN DATA

CLASS AA CONCRETE	fc' = 4 ksi
REINFORCING STEEL, AASHTO M 31 (GRADE 60)	fy = 60 ksi
NEW STRUCTURAL STEEL, AASHTO M 270 (GRADE 36 MIN.)	fy = 36 ksi MIN.
EXISTING STRUCTURAL STEEL, GRADE 36	fy = 36 ksi

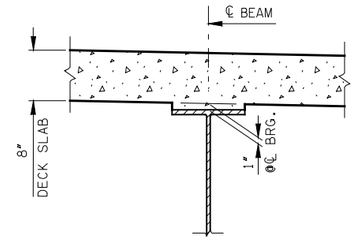
LOADING -

HL-93
20 PSF FUTURE WEARING SURFACE
5 PSF STAY-IN-PLACE FORMS

DESIGN -

AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 5TH EDITION WITH 2010 INTERIMS, EXCEPT AS MODIFIED BY CURRENT ODOT BRIDGE DIVISION DESIGN POLICIES.
ANSI/AASHTO/AWS D1.5 BRIDGE WELDING CODE

LFD OPERATING RATING - REFERENCE BEAM DETAIL SHEETS



DETAIL OF HAUNCH

HAUNCH HEIGHT SHOWN IS AT CENTERLINE BEARING ONLY, MEASURED FROM BOTTOM OF DECK SLAB TO TOP OF BEAM, AND VARIES ACROSS THE SPAN. HAUNCH HEIGHT TO BE DETERMINED AFTER ERECTION OF BEAMS TO PROVIDE FOR DEAD LOAD DEFLECTION AND GRADE ADJUSTMENT.

NOTES

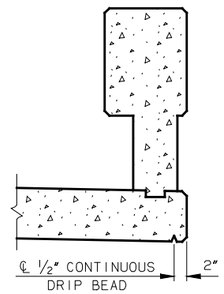
THE DESIGN SHEETS "TYPICAL CROSS SECTION, ROLLED BEAMS, 26' CLEAR ROADWAY, 30° SKEW" AND "ROLLED BEAM DETAILS, 26' CLEAR ROADWAY, 30° SKEW" ARE FOR USE IN CONSTRUCTION OF SINGLE SPAN BRIDGES (WITH 26' CLEAR ROADWAY, SKEWED 30°) AND HAVING CONVENTIONAL STEEL ABUTMENTS, UTILIZING THE OLD I-40 CROSSTOWN SALVAGED BEAMS SIZES W33X130, W33X141, W36X135 OR W36X150.

USE OBSOLETE COUNTY BRIDGE STANDARD IBNA-2 FOR STEEL ABUTMENTS, MAKING THE FOLLOWING MODIFICATIONS:

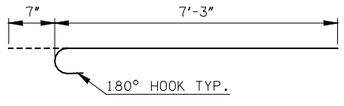
SUBSTITUTE AN HP 12x53 PILE OF GRADE 50 IN PLACE OF THE HP 10x42 PILE SHOWN FOR THE BENT CAP. VERTICAL HP 10x42 PILES SHALL BE GRADE 50. WELD BEARING PLATES TO THE BENT CAP AT BEAM LOCATIONS AS NEEDED TO ADJUST FOR CROSS-SLOPE. PLATE DIMENSIONS SHALL BE 9" x 1'-11" x THICKNESS REQUIRED). BEARING PLATE WELDS SHALL BE 5/16" FILLET WELD, ALL SIDES, WITH 3/8" TERMINATIONS.

ALSO REFER TO OBSOLETE COUNTY BRIDGE STANDARD IBN-1 FOR LONGITUDINAL SECTION AND STEEL CHANNEL HEADER DETAILS.

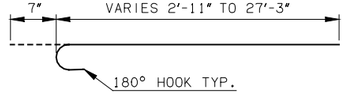
USE 2009 LRFD COUNTY BRIDGE STANDARDS CB26..32-C..I-SKO..30-RB-BRACING AND CB26-C-SK30-DIA-END-RB-2 FOR BEAM BRACING AND END DIAPHRAGM DETAILS RESPECTIVELY. THE FOLLOWING MODIFICATION WILL BE NECESSARY FOR THE END DIAPHRAGM BRACING:
END DIAPHRAGM DETAILS FOR W36 BEAMS SHALL BE USED FOR BOTH W33 AND W36 BEAMS. STRUCTURAL STEEL FOR CHANNEL DIAPHRAGMS AND GUSSET PLATES SHALL BE GRADE 36 MIN. BEAM SPACING, AND BEAM SPACING ALONG SKEW SHALL BE ADJUSTED AS NECESSARY TO ACCOMMODATE BEAMS SHOWN IN TYPICAL SECTION. ALSO REFER TO STANDARD CB26..32-C..I-SKO..30-GRAU-BC FOR GUARD RAIL CONNECTION.



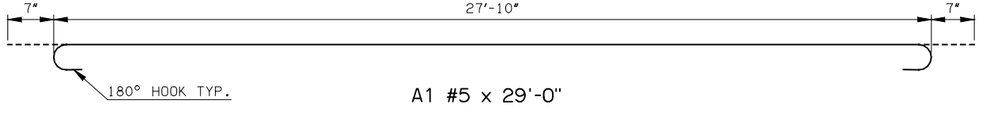
DETAIL "A"



AC #5 x 7'-10"



A2 #5 x 15'-1" AVG.



A1 #5 x 29'-0"

GENERAL NOTES

- STAY-IN-PLACE STEEL DECK FORMS MAY BE USED IF THE MINIMUM DECK SLAB THICKNESS OF 8" IS OBTAINED BY MEASURING FROM THE TOP OF THE DECK SLAB TO THE TOP PORTION OF THE STEEL CORRUGATION. NO ADDITIONAL CONCRETE WEIGHT OF THE DECK SLAB IS PERMITTED. ADDITIONAL STEEL WEIGHT OF THE DECK FORMS SHALL NOT EXCEED 5 PSF. STAY-IN-PLACE PRESTRESSED CONCRETE DECK FORMS MAY BE USED IF THE FOLLOWING CONDITIONS ARE MET:
  1) SHOP DRAWINGS AND STRUCTURAL CALCULATIONS FOR THE FORMS ARE SUBMITTED TO THE BRIDGE ENGINEER FOR APPROVAL.
  2) A NEW STRUCTURAL DESIGN, STRUCTURAL CALCULATIONS, AND A NEW REINFORCING SCHEDULE FOR THE DECK SLAB ARE SUBMITTED TO THE BRIDGE ENGINEER FOR APPROVAL.
  3) SHOP DRAWINGS, NEW DECK SLAB REINFORCING SCHEDULE AND STRUCTURAL DESIGNS AND CALCULATIONS SHALL BE PREPARED BY AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF OKLAHOMA.

  ALL COSTS ASSOCIATED WITH THE USE OF STAY-IN-PLACE FORMS, INCLUDING ALL PROFESSIONAL SERVICES, MATERIAL, LABOR, EQUIPMENT AND INCIDENTALS, SHALL BE AT THE CONTRACTOR'S EXPENSE. FOR ADDITIONAL INFORMATION CONCERNING THE USE OF STAY-IN-PLACE FORMS, SEE SECTION 502 OF THE STANDARD SPECIFICATIONS.
- DO NOT SAW-CUT GROOVE OR TINE THE DECK SLAB WITHIN 6" OF ANY CONSTRUCTION JOINT.

APPROVED BY BRIDGE ENGINEER Robert J. Rusch DATE 4-27-2012

OKLAHOMA DEPARTMENT OF TRANSPORTATION
COUNTY BRIDGE STANDARDS (ENGLISH)

TYPICAL CROSS SECTION
ROLLED BEAMS 26' CLEAR ROADWAY
30° SKEW

2009 SPECIFICATIONS	CB26-XTBM-SK30-XSECT	OOE
		CB-979E